Multi-Channel Redundant Wireless Network Link and device

Abstract:

A Multi-Channel Redundant Wireless Network Link (RWNL) device (10) comprises a plurality of wireless networking radio units, a processor unit, a radio control unit, and wired network units. Two RWNL devices communicating to each other form a multi-channel redundant wireless network communication link. The RWNL device aggrades the networking bandwidth of all its wireless networking units to become a big networking bandwidth. Network packets flow control means controls the networking packets transmitted between the wireless networking units and wired networking unit, the communication between the local wireless networking units to remote wireless networking units of the other RWNL. When the communication of one of the wireless networking channels failed to continue the communication, the flow control means will redistribute the packet flow among the remaining wireless networking radio units, shutdown the problem wireless networking channel, and report the networking status. Thus, as long as there is one wireless networking channel still functioning, the network link keeps communicating. The communication link has multiple redundancies.